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CASE OF INFLAMMATION OF THE APPENDIX CŒCI.

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X. P., an unmarried girl, 18 years old, was brought to my office by her mother, on the 31st day of October, 1862. She was evidently suffering and feeble, was somewhat bent forward in standing, walked with difficulty, and complained of pain in the bowels, which she ascribed to her not having been unwell for five weeks.

Examining her externally, I found in the region of the ileo-cœcal valve a circumscribed tumor, hard, deeply placed, rather larger than a hen's egg. She rode home and was put on her back; and at my subsequent visits, I obtained the following history:—

At about the middle of the month of August preceding, while staying at her sister's house in a neighboring seaside town, she ate very largely of wild cherries, swallowing the stones, and soon after, whortleberries and milk. There followed that night a severe attack, in regard to which no very accurate information can be obtained. She vomited repeatedly, had excruciating pain in the bowels and was not able to obtain any evacuation. Three or four injections had at length the desired effect, and gave her much relief; as to the character of the discharges, nothing can now be learned. The next day she had sufficiently recovered to be able to walk two miles, though against the earnest remonstrances of her friends, and with great difficulty. From this time, for many weeks, she had recurring attacks of abdominal pain. She returned to Boston in the latter part of September. The night before her return she had several severe chills; the following morning she was free from pain while in the horizontal position, but on attempting to rise, she fainted and vomited. During the few weeks following her return, she went to her place of work as usual. She often made complaint; but as when previously in perfect health, she had been the victim of many imaginary ailments, and as it was noticed that she ate with excellent appetite, no great attention was paid to her symptoms till the time of her visit to me.

She was of small size, still appearing a mere child; feebly built, with brown hair tinged with red, and long, soft eyelashes. Her father lived and died an intemperate man. A sister, next older than she, is in one of the State lunatic asylums, in a state of hopeless dementia.

She first menstruated before she was 12 years old, and from that time the function was performed with entire regularity. She had never any pain during the period. She was commonly unwell for a week. After the illness in August, she menstruated once at the proper period, but imperfectly, and only for two or three days. In the next month the function was in all respects well performed. When she came to see me first, she had passed five weeks without menstruating, and without any menstrual nisus. To complete this portion of the history, I will here add, that one week later, after six weeks, without special treatment, she was regularly unwell, and that after that time, for a period of seven months, there was no return.

She had been habitually a somewhat costive person. For a week before her first visit to me, there had been daily from one to three loose discharges; slight remedies soon corrected this symptom, and afterwards, either by the efforts of nature, or with the aid at times of the mildest laxatives, there were regular and entirely healthy dejections. There was never any important pain during micturition or defæcation.

The tumor, which has been heretofore described as it appeared on the last day of October, continued, without any noticeable incident, to increase, during the next six weeks, in extent and prominence, till on the 11th day of December last, it occupied the whole lower abdomen, and extended about once inch above the umbilicus. It was exceedingly tense; to use the patient's expression during the last few days of this period, she "felt all the time as if she should burst." Seen in the horizontal position, the part of the abdomen occupied by the tumor appeared to be everywhere raised from one and a half to two inches above the ordinary level. The enlarged abdomen bore no resemblance to that of pregnancy, being much flatter and also more uniformly resisting and dense than that of a woman pregnant at six months, the period most nearly approaching it in appearance. During the greater part of the six weeks now under consideration, there was no great disturbance of the pulse. Till very near its close, sleep could be procured by moderate doses of opiates. The appetite gradually failed, and for nearly three weeks previous to the 11th of December, she could hardly take any other nourishment than Dublin porter, of which she drank a pint daily with relish. The pain was sometimes relieved by anodyne external applications, and at other times by those of a stimulating character.

A few days before the 11th of December there was an evident effort at pointing, nearly in the median line, about an inch and a half below

the umbilicus. On that day, with the assistance of Dr. Wm. Read, who had kindly seen her often in consultation, I made an opening at the point indicated, of nearly two inches in length, giving issue to a violent jet of thin greenish pus, in quantity, as nearly as we could judge, more than a pint. With it there came perhaps a teaspoonful of minute grains, brownish in color, which, spread upon a cloth for intended examination by the microscope, and neglected, had in a few hours nearly disappeared, leaving only a faint yellow stain. Nearly three months later similar grains were once observed by the mother. The bystanders were conscious of a very offensive odor at the time of the operations, which had nearly if not quite disappeared on the following day. Dr. Read, who stood near, thought the odor "overpoweringly fæcal." I had no distinct perception of its having that character.

From the last date till the 13th day of March, there was a constant purulent discharge from the wound, slight in amount, not unusually offensive. With the two exceptions above mentioned, there was not during this period any appearance even suggesting the presence of fæcal matter. The patient soon became again able to sleep and to eat. There was for a short time slight irritability of the bladder, especially at night, and she often complained of a pain on attempting to rise or move, which was referred to the neighborhood of Poupart's ligament on the right side, and extended down the course of the crural nerve. There were days when, in trying to stand, her figure was bent almost at a right angle; on other days she could maintain a tolerably erect position. She was able to cross her room slowly, though she could not return till after some minutes' rest in the chair. With assistance, she got up stairs at bed-time. She remained excessively emaciated, though she had somewhat gained in vigor and improved in expression of countenance from the time of the opening of the abscess.

On the 13th of March, at the suggestion of Dr. R. M. Hodges, she was etherized and thoroughly examined by that gentleman and myself. A probe, inclined obliquely downwards and outwards from the main opening, penetrated right and left three or four inches, its point being depressed when at the farthest place reached, about an inch from the front of the patient. On examination by the rectum and by the vagina, it was doubtful whether the point of the probe could be detected, though Dr. H. thought that on performing ballottement he obtained obscure indications of its presence. The uterus, normal in size and condition, was placed very high in the vagina, and was with difficulty reached. The anterior sinus was almost obliterated, the posterior quite deep. The body of the uterus was felt prominent in the rectum, but was in no sense altered from its natural size and condition. After the examination, the leading sinuses and one or two fistulous openings which had formed in the neighborhood of the original puncture, were more freely opened and made to communicate.

After that time the discharge of pus from the wound became much more abundant. Her death took place three months later. Twice during that period masses of unquestionably fæcal matter made their way through the external opening, the largest one being about an inch long in either direction. Several glands in either groin suppurated and discharged. At the time of the etherization, there was an enlargement about one inch wide and two inches long, situated an inch and a half above the umbilicus and one inch to the right of the median line, which was then the principal source of suffering. It was not possible to demonstrate any connection between this tumor and the main abscess. Eight weeks later a moderate discharge of pus took place at this point, and the tumor rapidly disappeared.

The patient slowly declined with the symptoms usually accompanying an extensive suppurating surface. For some time before her death the lower extremities were in an anasarcous condition. There was delirium during the last two days of life.

No important remedial attempts were ever made.

At the autopsy, there were found in the whole lower half of the abdomen the usual appearances of old and extensive peritoneal inflammation. The intestines were glued together in every direction by firm adhesions. The appendix cœci was firmly attached throughout its whole extent to the cœcum, and presented at its extreme end an irregular perforation, as large as a half-dime piece. There was no other perforation in the course of the intestines. No foreign body could be detected in the cavity of the peritoneum, though it is quite possible that one of small size might have escaped notice. The tumor above the umbilicus to which reference has been made, was shown to have been only a deposit of pus in the cellular tissue of the parietes. The uterus and its appendages were in a healthy condition.

The case here described gave rise in its earlier stages to considerable difference of opinion as to its point of origin; one competent observer referring it to the parts around the uterus, while another was inclined to think that disease of some of the pelvic bones was the source of trouble.

The regularity and natural character of the dejections during the whole course of the disease, seem worthy of notice. Perforation of the appendix cœci is known to be not a very rare affection in this neighborhood, and yet so few cases of it have been publicly reported to the profession, that it appeared desirable to make known the details of even a single instance.

At the late meeting of the American Dental Convention in Saratoga, a gold medal was awarded to Dr. N. W. Kinsley for his invention of a successful appliance in cases of cleft palate.

EUROPEAN OPHTHALMIC INSTITUTIONS. No. II.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Quite a number of gentlemen of celebrity for their treatment of diseases of the eye, are included among the brilliant staff of the general hospitals of Paris; but the city does not contain special public hospitals devoted to these affections, like those of London.

The eminent advantages it offers to students in this department are found in private cliniques, maintained at the expense of the gentlemen who conduct them. These, however, are on so large a scale, as regards the number of out patients, and the frequency of operations, as to leave nothing to be desired.

The cliniques of Doctors Sichel, Desmarres and Liebreich are held within short distances of the School of Medicine, and at such hours as admit of a good morning's work in the general hospitals before attending them. Most of those who inscribe their names are advanced students, or have already graduated, and each is allowed his turn for special examinations of patients and for seeing operations to the best advantage. Private courses, on the use of the ophthalmoscope and on operations, are also given, where more extended explanations can be made than are possible in the brief clinical lectures given by the professors upon the interesting cases under treatment during the hours of consultations.

The class of cases varies considerably from those most frequent in London; catarrhal affections of the conjunctiva forming a much larger proportion of the whole than the strumous ulcerations of the cornea, so numerous in the sister city. In the treatment of these, both the nitrate of silver in solution and the crayon of sulphate of copper are employed—the latter more largely than in any others of the large institutions of England or the Continent.

At the time of my first visit, more than seventeen years ago, the Parisian Ophthalmic School occupied the highest place. Since that period, Germany, Holland and England have contributed, to an extent never, perhaps, equalled within the same period, to the advancement of knowledge in this department. And, though these improvements were at first accepted with a certain reserve, at Paris, there appears to be at present a determination not to be left behind in the onward progress of our science. The pathological conditions on which the ophthalmoscope has thrown so much light, are being thoroughly investigated, and the new operative procedures resulting therefrom are most successfully applied to the treatment of glaucoma and others of the affections formerly treated by internal means alone. One of the finest illustrated works on the phenomena disclosed by the ophthalmoscope, was published during my stay in Paris, by Mons. Liebreich, and there are numerous other indications of activity.

Apart from the large increase of the relative number of capital operations, from the new classes of cases now relieved by surgical means, I observed a decided change for the better in the after treatment of those operated on. They are subjected to less active antiphlogistic treatment, and less rigorous confinement, than was formerly believed to be necessary.

The pathology of strabismus has been re-studied, and the operations for its relief are done with more certainty, since the indications are more accurately determined. Staphyloma is also removed in a manner to leave the eye-ball in a better condition for avoiding sympathetic inflammation of the other eye, and to give a better stump for the support of an artificial eye, should the patient choose to wear one.

The days for operations vary at the different cliniques; so that by attending them in turn, more or less operations may be witnessed nearly every day.

At present, a student may have, at Paris, an opportunity for becoming acquainted with the new theories and modified practice of all the eminent men of other continental cities, as well as the skilful example and teachings of those who represent what may be termed the French school. Truly yours, H. W. W.

Berlin, Prussia, 4th July, 1863.

ON MYCETOMA.

By H. V. Carter, M.D. Lond., Assistant-Surgeon Bombay Army.

In the following remarks it is proposed to give some account of a very serious disease widely prevailing in India, and in its nature and pathological characters well worthy the attention of the surgeon and naturalist. "Mycetoma" stands for a form of swelling which is caused by the growth of a fungus. The term is sufficiently expressive, and briefer than, if not otherwise preferable to, that of "Fungus disease," under which I at first described the affection. Since those observations were made (March, 1860) many facts have come to light which almost complete the natural history of mycetoma, so that it may not be premature to offer the following as at least a basis for subsequent research.

A condensed description of the pathological characters of the disease, and a short account of its natural history, will be presented in succession; the facts upon which both are founded being entirely derived from personal observation.

I. The feet and hands are the only parts attacked; but this feature of the affection, as also its local or endemic character (which must still be called Indian), may require to be modified in the course of time and after more extended observation. Patients present themselves with a foot or hand (generally the former) much swollen,

of a dark color, and studded with numerous sinuses; the form of the swelling is more or less globular, and as to its extent, the whole of the member, or one side or part only, may be implicated. In the former case the projecting fingers appear to be imbedded, being themselves generally free; and the sole or palm is flat or even convex. Seldom does the disease extend much beyond the ankle or wrist, and its whole appearance, at first sight, somewhat resembles a long-standing scrofulous affection. The sinuses are considerable in number, and often clustered together about the sole, ankles, or dorsum of the foot; some are simple openings, others are raised upon soft elevations or present a pouting edge. The appearance of the more recent, especially in preserved specimens, is characteristic, being circular in form, from one third to one half inch in diameter, and gradually deepening towards the central aperture, from the removal of successive layers of cuticle; white patches are frequently seen around. The size to which the swelling may attain varies; in advanced cases its circumference may be eighteen inches, or upwards, and the form is then hugely misshapen.

Any one who is acquainted with the fungus-disease could not mistake it, when tolerably advanced, for ordinary caries; the size of the foot, its globular form, and the number and appearance of the sinuses, being the chief diagnostic characters; to which may be added, the absence of a corresponding degree of constitutional disturbance, pain, or hectic fever, and the patient is generally of a scrofulous or syphilitic taint. But there is one test which is applicable in almost all cases, and that is the character of the discharge. Sometimes the fungus-particles are so abundant as to block up the apertures of the sinuses, or float away in numbers in the thin serous or sero-purulent fluid, and when less numerous they may generally be detected with the aid of a lens. In the black variety a single glance will be sufficient, and in the pale and soft (which have been well compared to mustard or poppy seeds), their appearance is hardly less characteristic. The presence of these particles in the discharge from the sinuses is an infallible test of the nature of the disease; and by the use of the microscope I was very early enabled to make a correct diagnosis in a rather obscure case, but generally this aid is not required. The external appearances of mycetoma appear to be the same, whatever the form of fungus-growth. The sinuses are the terminations of canals, more or less lengthy and tortuous, which occasionally lead to bone; but the latter will not usually yield to pressure of the probe, for it is not really in a carious condition, although partly absorbed.

A section of a foot thus affected presents, on first view, much confusion of parts. The skin is greatly thickened, and the bony, muscular, and fibrous tissues seem blended and intermixed with a glairy or tenacious slough-like material, of reddish or greyish tint; globular masses of fungi, too, are seen scattered about, which are either

yellowish and of cheesy consistence (the so-called tubercles?), or deep brown or black, and much firmer. With a little attention, however, the following arrangement becomes evident: the collections of fungi are lodged in spherical cavities hollowed out in the osseous cancellous tissue, or in the soft parts, from which "loculi" branching tubular canals pass off, frequently inosculating, and terminating either in closed expanded extremities or on the surface at the sinus-apertures. These canals, like the loculi, are lined throughout by a membrane, easily separated from the bone or blended with the softer tissues, and they also contain fungus-particles imbedded in the soft or glairy material above mentioned; it is evident that their office is to conduct the fruits of the vegetable parasite to the external surface, where they are expelled in the serous discharge. A varying amount of inflammation, with its results, attends the growth of these foreign bodies, and the bones of the foot and leg, or of the hand, are affected in a striking manner, which, however, need not here be described; the spherical cavities which they contain are the most peculiar feature, and caries, or ulceration of the articulations, is seldom present, absorption from pressure being the only agent at work.

Mycetoma makes its appearance by a small, flattened, indolent tumor or "lump," firm to the touch, little painful, and of slow growth. In the course of a few months raised soft spots, or blebs, or vesicles, arise, which soon burst and let out the fungus-particles; sinuses thus are formed, and persist until all are expelled; meantime the swelling enlarges, or fresh ones appear, and so the disease progresses. The commencement is often on the sole of the foot; or, in the case of the hand, one of the fingers may be first attacked, as a most interesting specimen in my possession shows.

The natural duration of the disease is prolonged, the cases ordinarily seen being of from four to ten years' standing, and sometimes longer; its termination seems only coeval with exhaustion of the vital powers. A spontaneous cure must, I think, be exceedingly rare, though doubtless within the range of possibility. Some idea of the frequency of this unique affection may be gained from the fact that individual observers in this country have reckoned their cases by the score; one gentleman sent me particulars of seventy-five cases he had treated, and even in Bombay a year seldom passes without three or four cases being seen at the Jamsetjee Jejeebhoy Hospital, although the disease is not endemic here. It has only been seen in natives hitherto, the explanation of which is obvious, as they alone go barefooted, and seldom wash the feet thoroughly. Other noteworthy features are the following: it has mostly a single local manifestation; it is much most frequent in men, and during the middle periods of life, and commonest amongst the agricultural classes; it is not hereditary, or peculiar to any diathesis. In all these particulars, as well as in its endemic character, the fun-

gus-disease resembles the guinea-worm disease, and is unlike scrofulous affections, leprosy, elephantiasis, &c.; it is indeed a much more serious affection than the Dracunculoïd, and merits far more the attention of medical officers in India.

As to treatment, amputation is a certain cure, so long as every part invaded by the growth is removed, and it is necessary to mark this, as partial amputations have failed. Were it possible (of which I have strong doubts) to destroy the vegetable growth by local applications or injections, this plan might be adopted previous to the more serious procedure; a very intelligent graduate of the Grant College sent me word that he thought he had eradicated the disease by the free use of strong nitric acid, but time must tell how far such means are really available; the wonderful fecundity of the parasite and its deep penetration into the tissues, seem to me almost insuperable obstacles.

II. *Description and Natural History of the Fungi.*—These foreign bodies—the sole cause of disease—are not of a uniform appearance; but as the history, course, and appearance of the disease seem to be in all cases the same, so, it may be inferred, is its exciting cause; and it is well known that these low-organized growths are susceptible of great modifications according to external circumstances; some experiments, to be presently mentioned, indicate, moreover, a common origin of the two most frequent forms of fungi. Of the three varieties distinguished below, two were first noticed by myself, and I also was enabled to detect the real nature of the second or most common, which had been previously described by my colleague, Dr. G. R. Ballingall, and by him submitted to the late lamented Professor Quekett,* without, however, a definite opinion being elicited of its character.

1. The black fungus occurs in more or less spherical masses, attaining the size of half an inch in diameter; outer surface of a jet-black color, and minutely tuberculated; section of a rich deep brown, and radiated in aspect; consistence very firm, friable, and readily yielding along the radii, sometimes tearing like decayed wood. Structure of closely aggregated fasciculi (diam. $\frac{1}{200}$ to $\frac{1}{400}$ in.) cylindrical, beaded, branching and blending, and radiating from a common centre; they are composed of pale, homogeneous fibres (diam. $\frac{1}{1000}$ to $\frac{1}{3000}$ in.), and at their peripheral extremities expand into firm, rounded "heads" of a deep black color, to the varying projection of which the tuberculated character of the exterior is due. These globular expansions (diam. $\frac{1}{100}$ to $\frac{1}{120}$ in.) are also found at the ends of the shorter branches, and are composed of closely packed cells (beaded cellular filaments?) of an orange tint, interspersed amongst which are larger, thick-walled cells (abortive sporangia?).

* I would here beg permission to add my testimony of respect and regard to the memory of that amiable and talented man, in whose society I passed many profitable hours during the time I held the Studentship of Anatomy in the Royal College of Surgeons.

These larger masses occupy the "loculi" before mentioned, and seem to break up into smaller fragments, each of which corresponds to one or more of the globular "heads" thus become detached; and these black particles, incalculable in number, crowd the canals or sinuses on their way to the outer part of the body; they are somewhat larger than a pin's head in size, and may alone be present in the foot. Containing the reproductive elements, these black particles will, under favorable circumstances, germinate, and we then find a red mould-like fungus spring up; this is probably the parent, so to speak, or normal form of the black fungus of mycetoma. The latter also occurs in another condition, having undergone degeneration (fatty) in the foot, leaving lighter colored masses, crystalline in consistence (stearine or margarine?) and devoid of structure; this change is an approximation to the next variety.

2. Small masses of cheesy consistence and light-brown tint, formed of an aggregation of granular particles, and occupying the same "loculi" as the above. The granules or particles are quite visible to the unaided eye, and resemble poppy seeds; their number is immense, and they are freely discharged by the sinuses. Each consists of numerous minute rounded or angular bodies (diam. about $\frac{1}{65}$th in.), which are enveloped on all sides by a deep crystalline fringe (stearic?), thus presenting a curious appearance, enough to perplex both Dr. Ballingall and Professor Quekett, more especially as the rounded bodies appear to be structureless, or only finely granular. It was not until I met with a specimen of this variety of mycetoma, in which the fungus particles were free from the crystalline fringe, and still showed a cellular structure, that I learned the true nature of these bodies; they are degenerated fungi. In their interior may sometimes be seen clear nucleus-like forms, which somewhat resemble spores, but which are probably oil globules.

3. Once I found countless minute pink-colored particles, visible to the eye as reddish grains (like Cayenne pepper), and when magnified exhibiting a bi- or multi-partite aspect of regular arrangement; when single the particles were oval, and resembled, more or less, in size and structure, the bodies just described, but they possessed the property of multiplying themselves by subdivision, and their color was different. The cellular structure was not apparent, but I conclude that it once existed. The crystalline envelope was absent, though, as in other cases, much free fat (also of a pink tinge) was seen.

On the present occasion it is not necessary to enter into further details respecting these parasitic growths; I hope one day to record the results of closer examination, and now proceed to offer a few remarks on the natural history of mycetoma.

It may be regarded as certain, that the hand or foot becomes accidentally inoculated with the spores of some mould or mould-like cryptogam, which at certain periods of the year—most likely previ-

ous to or during the wet season, when all kinds of fungi abound—makes it appearance on the soil of particular localities: the naked, unwashed feet of the agricultural laborer must be peculiarly liable to such contingency, and it is not necessary to infer the pre-existence of an artificial abrasion of the cutaneous surface, as the spores are quite capable of passing into natural apertures—e. g., the sweat ducts. In many specimens I have noticed pinkish streaks in the substance of the skin and subjacent tissue, on the sole of the foot, &c.; and on further examination, finding these streaks to contain numerous spore-like cells in various states of growth, I conclude that they constitute the first stage of development of the disease.

As to the specific character of the parasite, I was at first strongly inclined to compare the fungus of mycetoma with the "rusts" and mildews which attack so many cereals and grasses, and to ask if it is not possible that the species infesting common Indian grasses, &c. (e. g., sorghum, maize), if transplanted into the human foot, might not give rise to the disease; but more recently, as the result of further inquiry, and in deference to the opinion of Rev. M. J. Berkeley, our great British authority, with whom I have had the advantage of corresponding on this subject, I am inclined to surmise that the human fungi correspond to those imperfect states of ordinary moulds, &c., which have been distinguished by the term "sclerotia." Under certain unfavorable circumstances, the mycelium of the mould ceases to put forth the organs of fructification, and assumes the form of a firm, compact, cellular substance, capable of resisting adverse influences, but also susceptible, under more favorable circumstances, of again developing into the normal or fundamental species —a phenomenon essentially analogous to what occurs in the lowest forms of animal life, and, in a far less degree, to the hybernation of some of the higher.

Now it happens, that on several specimens of mycetoma, placed in spirit or water shortly before the monsoon season, a red mould has appeared on the exposed surfaces, whilst other preparations, similarly placed, have not shown any such appearance; again, fungus-particles from the foot, set in moistened rice-paste, have also given rise to the same mould, whilst plain rice-paste, placed side by side, has been either unaffected or only yielded common forms. I have recently ascertained this fact, with respect to both the chief varieties of the disease, and it throws clear light upon the origin and nature of this destructive parasite.

Mr. Berkeley's opinion is to the same effect, and he informs me that he should name this red mould *Chionyphe* (mucor?) *Carteri;* I had not ventured, from want of practical knowledge, to suggest a name, although the fungus was fully referred to by me last year (1861).

It cannot be denied that this mould has not been seen in its natural locality, and also that cotton soil from the affected districts

has failed to yield it when moistened and exposed to air; but the observations and experiments that have been made are as yet too few and incomplete to enable us to speak positively on this part of the subject.

Did space permit, I should gladly point out the numerous analogies that exist between this unique parasitic affection and other entophytic and entozoic diseases, all of which, it seems to me, to transcend, in both interest and importance; but I trust enough has been said to afford some idea of its appearance and characters.

Note.—Further information may be found in the last three volumes of the "Transactions of the Medical and Physical Society of Bombay," especially No. 6, and Mr. Berkeley has just published, in the "Intellectual Observer," a short description of the fungi, based chiefly on my memoirs, and illustrated by figures which, to a certain extent, agree with my own, but partly differ; the characters of *Chionyphe Carteri* are laid down as follows—"hyphasmate ex albo flavorubroque; sporangiis demum coccineis; sporis breviter fusiformibus."

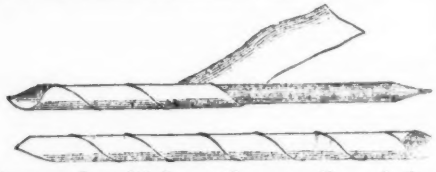
With regard to another subject, that of leprosy, a short account of which lately appeared (Jan., 1863) in this *Review*, I would add that additional information, necessarily omitted here, may be found in the eighth volume of the same "Transactions."—*British and Foreign Medico-Chirurgical Review.*

MEDICATED CIGARETTES.

By W. E. Bowman, M.D.

Cigarettes may be made of almost any variety of thick paper, but that kind should be selected that on burning yields a smoke most easily inhaled. I have always employed the heavy paper used for copy book covers (olive pressings); thick blotting paper, however, makes a good cigarette, but the regular filtering paper does not answer, as its smoke is dense and suffocating.

First, cut the paper into strips about seven inches long and an inch and a quarter wide, and next ascertain how much fluid it requires to saturate twenty-five of these pieces. This is readily done by soaking them in an exactly measured ounce of water, when on withdrawal it will be found that about five fluid drachms of the liquid has been imbibed; this will give the key to the strength you are to make the solutions.



Next saturate the slips with the remedy, and when nearly dry gum or paste one border of each, and roll it around a pencil, as shown in the following wood-cut; afterwards withdraw the pencil, and the cigarette is made.—*Can. Lan.*

Arsenical Cigarettes.—Boil 25 grains of arsenious acid (the lump broken up is purest) in a Florence flask, with four ounces of water, down to the quantity required to saturate 100 slips of the paper previous to rolling. They will then contain a quarter of a grain each. If you have not the usual apparatus, hang the flask above some live coals by means of a wire.

Mercurial Cigarettes.—Dissolve three drachms of red precipitate in three drachms of nitric acid, and add enough water to make up the quantity required to saturate 100 slips of paper. They will contain about three grains of the nitrate of mercury.

Nitre Cigarettes.—Dip the paper in a saturated solution of the nitrate of potash before rolling.

Balsamic Cigarettes are made by giving the dried nitre cigarettes a coating of tincture of benzoin.

In the *British Medical Journal*, Dr. Nevins, of the Royal Infirmary School of Medicine, Liverpool, speaks highly of these cigarettes in a number of cases.

Aphonia.—A patient who could not speak above a whisper for over a year, probably due to a thickened condition of the chordæ vocales, as she had no pain or constitutional symptoms, used the mercurial cigarettes for a month, and perfectly recovered.

Offensive Discharges from the Nostrils, with a sense of uneasiness in the frontal sinuses, was quite cured in about a month with the mercurial cigarettes. The patient held his nose after taking a mouthful of the smoke, and then forced it into his nostrils in the manner practised by accomplished smokers.

Polypus in the Nose.—A patient who had been twice operated upon for polypus, is now able to keep the disposition to form fresh polypi in check, by smoking the mercurial cigarette in the same manner, when he feels that uneasiness which warns him of the danger of its recurrence.

Deafness.—When dependent upon an obstructed Eustachian tube, he finds the nitre cigarettes, made with brown paper, most successful, and that the smoke forced into the tympanum from the throat gradually restores the sense of hearing. The circumstance which first led him to adopt this method, was hearing a deaf person on one occasion remark, that when he was sneezing the day before, he heard perfectly; the violent effort appeared for the moment to have dilated the Eustachian tube, and hearing was the result. He says, that in a deafness of seven years' standing, he had benefited a patient more by this treatment than by any other.

Phthisis.—Trousseau long ago recommended a puff or two of an arsenical cigarette twice or three times a day in phthisis.

When the attention of the profession has been duly aroused to this subject, there will doubtless be found many other affections in which medicated cigarettes may be advantageously employed, as in

syphilitic ulcerations of the throat, ozæna, offensive breath, obstruction of the lachrymal duct, diphtheria, &c. &c.—*Canada Lancet.*

Army Medical Intelligence.

Treatment of Gun-shot Wounds of Chest and Abdomen.

[Communicated for the Boston Medical and Surgical Journal.]

Headquarters Art'y Brig., 5th Corps, Army of the Potomac,
Camp near Aldie, Va., June 25th, 1863.

Gen. W. A. Hammond, *Surgeon-General U.S.A.*

(*Extract.*)—Sir,—I have the honor to submit for your consideration the following modes of treatment of gun-shot and penetrating wounds of the chest and abdomen, in which suppuration has not commenced.

All foreign bodies within reach having been removed, and bleeding of the wound having ceased, if it be from gun-shot pare the edges of the wound all around, as in the operation for vesico-vaginal fistula; bring the opposite edges together, and retain them in accurate apposition by metallic sutures; carefully dry the wound and parts immediately surrounding, place thereon a few shreds of charpie arranged crosswise after the manner of warp and woof, pour on the charpie a few drops of collodion so as to saturate it and form a sort of collodion cloth, let it dry, then apply one or two additional coats of collodion with a camel's hair pencil, and repeat the process until satisfied that the wound is *hermetically sealed.* A dossil of lint may then be applied over it as a compress, secured by adhesive straps and roller bandage.

The natural condition of the parts is now approximately restored. The lung is suspended in a closed cavity; the volume of air admitted while the wound was open, soon becomes absorbed, and the lung is again at liberty to expand freely. The most distressing symptom, *dyspnœa,* is relieved immediately.

At the Hospital of the 2d Div., 5th Corps, I applied this dressing to two cases of gun-shot wound of the chest, several days after they were received at the battle of Chancellorville, both of them suffering greatly from dyspnœa. In both, the symptoms were alleviated at once, and the next day one said he felt quite well, and the other continued to feel better. The following day they were sent to General Hospital, and were lost sight of.

Suppuration, which is apt to be so excessive and fœtid in consequence of the admission of constantly-renewed currents of atmospheric air, promises to be *prevented* by this method, or very much modified in extent and character. The coagulated blood in the pleural cavity, which becomes decomposed and fœtid, producing a direct depression of the vital powers, is reduced to a simply mechanical inconvenience, and gradually becomes absorbed. The dressing is economical in point of time, as it is quickly applied, and may seldom need renewing. In the case of a private of the 18th U. S. Infantry, in which I used this dressing in 1861, for the first time, for bayonet wound of the abdomen, it remained intact until after the wound had entirely healed. It is simple and cleanly, and, if successful, will prevent the patient becoming obnoxious to himself and to all around him.

If this mode of treatment were carried out, I believe the fatality of

these wounds would be greatly diminished. I have been unable to demonstrate the value of this treatment, as every case but one, which was remarkably successful, has been sent away to some hospital where the dressing has invariably been removed and replaced by water or some other dressing. I therefore respectfully request that, if it meet your approbation, such arrangements be made as will enable me on the first opportunity fairly to test the value of this plan of treatment.

* * * * * * * *

I remain, very respectfully, your obedient servant,

(Signed) B. Howard, *Ass't Sur. U.S.A., Surgeon-in-Chief Art'y Brig., 5th Corps.*

Negro Regiments—Department of the Tennessee.

Vicksburg, July 27th, 1863.

Messrs. Editors,—Having finished an inspection, under the direction of the Medical Director of the Department of the Tennessee, of the negro regiments located between Lake Providence and Sherman's Landing, and knowing that the public, medical and general, take considerable interest in this new branch of military power, I take the liberty of sending you a few notes, extracted from my report.

The regiments of African descent, as they are called, in this Department number seven, which are rapidly filling up to their full quota. Several others are also being organized, and will soon be in the field. At present we have about five thousand negro soldiers in this Department, whose daily conduct in camp and in field is solving great questions connected with the negro as a soldier.

I had to do with many of the wounded of the late battle at Milliken's Bend, and have thus seen the negro in the hospital, and under the surgeon's knife. I have inspected him in camp, and have conversed freely in reference to him with his commanding officers, and I am happy to say that I believe the experiment of making the negro a military power will be a success. The officers in command, without exception, spoke to me in the highest terms of the discipline and courage of their men. Some went so far as to say that they would prefer leading a black to a white regiment.

In a medical point of view, I have reported the following conclusions :—

First. In my opinion, the medical staff should be re-organized.

Second. The regiments, including the hospitals, should be supplied immediately with tents, cooking utensils, and their full quota of camp equipage generally.

Third. The officers, both military and medical, should pay special attention to the cooking department, supervise the quantity and quality of the food, both of the well and the sick, so as to make them correspond as nearly as possible with the previous habits of the negro. Government rations, as now administered, are too large in quantity and too varied in quality for the simple habits of the negro, who does not ordinarily consume as much as the white man.

Fourth. Care should be taken not to overwork or overdrill the African. He should rest from labor during the heat of the day.

The woolen clothes of the Northern Army, with the exception of the blouse, are too heavy for the negro in the Southern climate, and

should be exchanged for cotton or other light fabrics, made to fit his person loosely.

Sixth. In sickness the negro soldier should be carefully attended by white persons. The reason for this is, the dependent character of his mind, produced by a life of slavery. Intelligent blacks can, however, in a very short time be educated to perform these duties.

Seventh. Medical officers should depend more upon good nursing and diet, than upon drugs, for the cure of their patients.

Eighth. It is a mistake to suppose that the African is not affected by the intense rays of the sun. Exposure to great heat produces languor, cerebral congestion and sun-stroke, though the non-conducting power of the covering of his head protects that organ somewhat from the extremes of heat.

Ninth. The negro is not exempt from the diseases of his climate, any more than the white. He suffers from the same maladies, and ought to be treated by the same remedies.

Tenth. The medical and commanding officers should follow strictly the Regulations of the Army in locating and managing the sinks in their respective commands.

Eleventh. Surgeons in charge of regiments, as soon as any of their patients cease to improve in regimental hospitals, should send them to general hospitals, where the conveniences of treatment are necessarily greater.

The above are some of the conclusions which I have drawn, after a personal inspection of the regiments and camps of the negroes. I have recommended, also, the establishment of a general hospital, with a capacity of three to five hundred beds, to be located in a healthy position, and to receive the worst patients from the various regimental hospitals. Respectfully, your obedient servant,

JAMES BRYAN, *Surgeon U.S.V.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 13, 1863.

NEXT to the professional tyranny of overdosing, we would set that which seems to take delight in placing the unfortunate patient under excessive restraint in matters of diet and regimen. There is a class of physicians, happily growing smaller every day, who seem to think that the moment a man gets sick all his natural tastes and appetites must be put in the closest bondage. Sickness being an abnormal condition, of course the normal demands of the system must be opposed, to bring the whole operation of the machine into consistent working. The food must be entirely different from that which is palatable at other times, and the ingenuity of friends and attendants must be taxed to provide substitutes for the usual beverages of health. We think we are speaking to the experience of every physician when we say that very often these well-meant efforts are a source of infinite disgust and discomfort to the patient. Some physicians there are who are so constituted that the bare suggestion by the patient of some article of

food or medicine is enough to set them in dead opposition to it. Nothing can produce a stronger dislike on the part of an intelligent patient than such a display of professional authority. Well do we remember the vehement expressions of a sufferer from such severity of discipline, when describing a series of such "slips between the cup and the lip" by which he had been made to feel the authority of his medical adviser while recovering from a severe surgical operation. He was fully possessed with the idea that the interdict was merely an exercise of arbitrary power, and his experience in one instance, when the prohibition came too late, only confirmed this impression.

Cold water is an innocent fluid—of late years it has had its extravagant admirers even—and yet how common it is for patients to be unduly restrained in the use of it. How many unfortunate infants, gasping for it in the parched and fervid heat of scarlet fever, are compelled to swallow saffron tea instead! In such cases, we know the fear of nature's refreshing draught is much more apt to be on the side of the parents and friends than the physician. And yet this is not always so. Not long since we saw a patient, an adult, suffering from severe pneumonia. Some dissatisfaction on the part of the patient led her to call in another practitioner. "Doctor," said she, "is there any objection to my drinking cold water?" "Certainly not," was the answer. "Why," said the patient, with a look of the greatest satisfaction and relief, "Dr. —— wouldn't let me touch a drop of it." The nurse then joined the colloquy, and confessed that she had, "*unbeknownst*" to the doctor, given it to her, but it was under a fearful sense of responsibility.

In conclusion, then, let us bear in mind that *naturâ duce* should be our motto in matters of diet and regimen with the sick, as it is in all other matters of treatment. To most of our readers we know such a suggestion is superfluous, and almost demanding apology. That thirsty sufferer, then, must be our excuse; we trust it is a sufficient one.

We received the letter from which the following is an extract some time since, but were unwilling to publish it at the time, while the rebels were in Maryland, lest our friend might be subjected to rough usage in consequence. We think, however, that his creditable management, by which four hundred prisoners were saved, equivalent to four hundred taken from the enemy, should be publicly known. We trust we shall be excused for thus violating the confidence of a private letter. The letter is dated Cumberland, Md., June 22, 1863.

* * * "This city was abandoned to the enemy by the entire withdrawal of all Government troops, on Monday, 15th inst. I had about 400 patients in the hospital at the time, but on the following day I succeeded in removing all but eight, who were too sick to be taken from their beds. Most of them hid in the neighboring mountains, where they were perfectly safe from capture or parole, and their wants could be sufficiently attended to. The following morning (17th) the rebels appeared on the hill just back of my office, and threw a few shell into the town. Not meeting with any response, they came in with a flag of truce, and soon after our streets were filled with greybacks. Their force was not large, and they appeared to be greatly in fear of an attack while here, and hurriedly took themselves off after a few hours' occupation. They commenced writing paroles of the eight

sick soldiers in hospital, but in their alarm they fled before the writings were finished, so that, so far as I can learn, I have not had a man captured or paroled.

"They visited my store-house and dispensary, but could find nothing worth taking; I had secreted my stock of quinine, morphine, *calomel* and *tartar emetic*.

"The case of exsection you refer to is doing well, and I shall be happy to report at a future time. The rebel surgeons got hold of the patient, who was in the streets in citizen's dress at the time. They examined his arm, and questioned him closely as to the nature of the injury, but the fellow concocted a story that wholly misled them.

"No property, public or private, was destroyed in the city by the enemy while here. Very truly yours,

J. B. Lewis, *Surgeon U.S.V.*"

Some time since we noticed, somewhat at length, Dr. Arnold's pamphlet on medical and surgical provision for railroads. Dr. A.'s laudable efforts to secure some efficient legislation in the State of New York for this purpose, were prompted by the great suffering and mortality on the railroads of that State, for the want of sufficient preparation to meet the exigencies of sudden accidents. The statistics of the past year only confirm the necessity of such a provision; and we sincerely hope it will not be long before the desired action of the legislature may be brought about. We copy from *Hunt's Merchants' Magazine* the following extract from the official report of the State Engineer for the past year. Sixty-six of the eighty-two railroad companies in the State of New York have made their reports.

"Number of passengers killed	22
"Of which on city roads	6
"Number of passengers injured	45
"Of which by city roads	21
"Number of employees killed	51
"Others than employees and passengers killed	80
"Others than employees and passengers injured	42
"Total killed (city roads, 12)	153
"Total injured (city roads, 31)	115."

The comparative liability of white and colored troops to diseases of a malarious origin has long since attracted the attention of the English authorities, and has doubtless greatly influenced the composition of their forces serving in malarious countries. From the annual report of the British army for 1859, it appears that in Jamaica the ratio of mortality is as follows:—White 101.9, black 8.2; Bahamas, white 159.0, black 5.6; Sierra Leone, white 410, black 2.4 These facts have an important bearing on the present policy of our Government in organizing negro regiments for service in the malarious regions of the South. Already Surgeon-General Hammond has been able to contribute an item of statistical information bearing on this point. In a recent communication to the Secretary of War he states that Medical Inspector Townshend reports, that in the Department of the Gulf white and colored troops are found serving together, and equally subjected to malarious influences. The ratio of sick, of diarrhœa, dysentery, remittent, intermittent, typhoid fevers, &c., is white 10.8 per cent., and colored

0.8 per cent. The argument in favor of the employment of colored troops at the South, if based on their comparative immunity from the diseases peculiar to that region, is conclusive.—*Am. Med. Times.*

Spirit Rations in the U. S. Navy.—The following General Order, now in force, was issued in July, 1862:—"From and after the 1st of Sept. next, the law allows *five cents per day* to each person in the navy, now entitled to the spirit ration, in commutation and lieu thereof, which shall be in addition to their present pay.

"Pay officers will credit this allowance on their rolls, under the separate head of "undrawn spirits," to each person on board ship entitled to a ration, and at the end of each quarter will pay the amount due, to such of the crew and marines as may elect to receive it. If any person shall decline to receive such payment, it must remain to his credit on the books of the ship and be accounted for in the same manner as other pay.

"The commutation price of the navy ration will continue to be twenty-five cents, without reference to the five cents allowed as above mentioned."

Revaccination.—M. Vleminckx, the distinguished Medical Director of the Belgian army, has been for some years past engaged in investigating the subject of revaccination, and the following are the conclusions he has arrived at, based upon 2,000 revaccinations performed with the greatest care:—1. The revaccination of well vaccinated subjects generally produces but very slight useful effect. 2. Revaccination is much more called for in the case of persons who have had the smallpox than in those who have been vaccinated. 3. Revaccination is more successful in proportion to the length of time that has elapsed from the period of the first vaccination or an attack of variola. 4. Prior to the age of 25 revaccination is generally useless. 5. From that age until the 35th year, it gives rise to useful results in a certain number of individuals, but still in an exceedingly limited number, so that, without proscribing it, it should not be very strongly recommended. 6. After the age of 35 it becomes truly a preservative, and consequently necessary. 7. When it gives rise to no result on a first occasion, this is no reason why it should not be resorted to at another epoch, there being no proof that the receptivity may not have become developed in the period between the two operations. 8. The revaccination of pupils of schools and seminaries is useless. 9. The same may be said respecting the soldiers of the Belgian army. These conclusions were arrived at by M. Vleminckx in 1858, and none of them were shaken by the results of other investigations conducted on a large scale in 1861–62; and an epidemic of variola which broke out in East Flanders in 1862, has still further confirmed their accuracy.—*Medical News and Library*, from *Med. Times and Gaz.*, June 20, 1863.

Mercy Hospital in Chicago.—An ample plot of ground, beautifully improved, and occupied by a well constructed building, on the corner of Calumet Avenue and Rio Grande Street, has been secured and fitted up as a permanent location for this hospital. The building is constructed of brick, 40 by 80 feet, and four stories high. It contains six public wards for ordinary medical and surgical patients, both male

and female; six smaller rooms, admirably adapted for the accommodation of those patients whose circumstances render them desirous of better and more quiet rooms than can be had in a general ward; and a ward especially for lying-in women. We shall thus have a general hospital, worthy of the name, and adequate to the wants of the city. It will continue, as heretofore, under the excellent management of the Sisters of Mercy. The medical wards will continue under the charge of Prof. N. S. Davis; the surgical, under the charge of Prof. E. Andrews; and the lying-in department under the care of Prof. W. H. Byford.—*Chicago Medical Examiner.*

Medical Department of Lind University.—A new College edifice is in course of erection for the Medical Department of Lind University, in Chicago, Ill., to be completed in September, and used for the next annual course of instruction. It is of brick, three stories high, and will combine all desirable conveniences and comforts. The name of this University having been changed by the Board of Trustees to that of *Lake Forest University*, a new name for the medical school became necessary, and the Faculty have given to it the title of the *Chicago Medical College*, by which it will hereafter be known.

We have received from Dr. H. R. Storer, too late for insertion in this week's Journal, a criticism on Dr. John's paper on the use of Chloroform in Midwifery, printed in last week's Journal. It will appear in our next week's issue.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, August 8th, 1863.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	120	66	186
Ave. mortality of corresponding weeks for ten years, 1853—1863,	58.7	50.0	108.7
Average corrected to increased population	00	00	119.76
Death of persons above 90	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Chol. Infan.
17	2	0	1	0	6	8	52

Books and Pamphlets Received.—Humphrey's Journal of Photography and the Allied Arts and Sciences. Edited by John Towler, M.D. New York. No. 7, Vol. xv.—Annual Announcement of the Geneva Medical College, Session of 1863-64.—Medical Communications with the Proceedings of the Seventy-first Annual Convention of the Connecticut Medical Society.—The Physician's Visiting List, Diary and Book of Engagements for 1864. From Lindsay & Blakiston, Philadelphia.

Died,—In Walpole, Aug. 7th, suddenly, Dr. Harvey E. Clap, of Wrentham, 49.

Deaths in Boston for the week ending Saturday noon, Aug. 8th, 186. Males, 120—Females, 66.—Accident, 1—apoplexy, 10—asthma, 1—disease of the bowels, 1—inflammation of the bowels, 3—ulceration of the bowels, 1—congestion of the brain, 4—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 2—cholera morbus, 1—cholera infantum, 52—bilious colic, 1—consumption, 17—convulsions, 8—croup, 2—debility, 1—diarrhœa, 2—diphtheria, 4—dropsy, 3—dropsy of the brain, 3—drowned, 2—dysentery, 6—epilepsy, 1—erysipelas, 1—typhoid fever, 8—gangrene of leg, 1—gastritis, 1—disease of the heart, 5—infantile disease, 3—intemperance, 4—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 1—marasmus, 5—necrosis of the leg, 1—old age, 3—paralysis, 1—sunstroke, 8—tabes mesenterica, 1—teething, 1—thrush, 1—unknown, 7.

Under 5 years of age, 85—between 5 and 20 years, 9—between 20 and 40 years, 49—between 40 and 60 years, 29—above 60 years, 14. Born in the United States, 121—Ireland, 53—other places, 12.